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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/791,755

03/04/2004

Osamu Takagi

016907-1610

5261

22428

7590

06/29/2004

FOLEY AND LARDNER

SUITE 500

3000 K STREET NW

WASHINGTON, DC 20007

EXAMINER

BRASE, SANDRA L

ART UNIT

PAPER NUMBER

2852

DATE MAILED: 06/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

SA

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/791,755	TAKAGI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Sandra L. Brase	2852	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7-15 is/are allowed.
- 6) ☒ Claim(s) 2-4, 6, 16, 17 and 19-23 is/are rejected.
- 7) ☒ Claim(s) 5, 18 and 24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 10/154,970.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. ____   |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>3/4/04</u>  | 6) <input type="checkbox"/> Other: ____                                     |

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: 62b and 62c. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112***

2. Claim 21 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 21 appears to reiterate the limitations of claim 20, and hence it is unclear as to how claim 21 further limits claim 20.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 2852

4. Claims 2-4, 16, 17 and 19-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Okabayashi et al. (US 5,822,669).

5. Okabayashi et al. (...669) disclose a heating mechanism comprising: a cylindrical heating member (10 or 30) which supplies heat to a sheet and which includes a central axis; a first coil body which includes a first magnetic core (23) and which increases a temperature of the heating member, the first magnetic core extending parallel to the central axis and having two end portions, wherein one end portion has a first surface forming a predetermined angle relative to the central axis (figures 9A, 10A, 13A, 14A, 16A, 17A, 22A, 23A and 26); a second coil body which includes a second magnetic core (23) and which increases the temperature of the heating member, the second magnetic core extending parallel to the central axis and having two end portions, wherein one end portion has a second surface forming a predetermined angle relative to the central axis (figures 9A, 10A, 13A, 14A, 16A, 17A, 22A, 23A and 26), where the first surface has a portion opposing the second surface in a direction orthogonal to the central axis and the first and second surfaces are parallel to each other (figures 9A, 10A, 13A, 14A, 16A, 17A, 22A, 23A and 26). The heating member is arranged outside the first coil body and the second coil body, and wherein the first magnetic core and the second face each other in a circumferential direction of the heating member (figures 9A, 10A, 13A, 14A, 16A, 17A, 22A, 23A and 26). The heating mechanism can have the configuration that a first coil which increases temperature of the heating member and which includes portions away from the heating member by different distances (figure 16A); and a second coil which increases the temperature of the heating member and which includes portions away from the heating member by different distances (figure 16A). The first coil is adjacent to the second coil in the direction of the central axis at a first coil end

Art Unit: 2852

portion closest to the heating member (figure 16A). The first and second coils are wound around a holding member including portions away from the heating member by different distances (figure 16A). The holding member is closest to the heating member where the first coil is adjacent to the second coil in the direction of the central axis (figure 16A). The heating mechanism can have the configuration that the first magnetic core includes portions away from the heating member by different distances (figure 16A); and the second magnetic core includes portions away from the heating member by different distances (figure 16A). The first magnetic core is adjacent to the second magnetic core in the direction of the central axis at a first magnetic core end portion closest to the heating member (figure 16A).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Art Unit: 2852

8. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Okabayashi et al. (US 5,822,669) in view of Kato et al. (US 5,752,150).

9. Okabayashi et al. (...669) disclose the features mentioned previously, but do not disclose the first and second coils wound around the first and second cores, respectively, in a direction orthogonal to the central axis. Kato et al. (...150) disclose a heating mechanism including a first coil body having a coil member wound around a first magnetic core along a direction orthogonal to a central axis of a cylindrical heating member (figure 2), and a second coil body having a coil member wound around a second magnetic core along a direction orthogonal to the central axis of the cylindrical heating member (figure 2). It would have been obvious to one of ordinary skill in the art at the time of the invention to have the first and second coils wound around the first and second cores, respectively, in a direction orthogonal to the central axis, as disclosed by Kato et al. (...150), since it is well known to have coils wound in such a direction in a heating mechanism.

***Allowable Subject Matter***

10. Claims 5, 18 and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. Claims 7-15 are allowed.

***Prior Art***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kato et al. (US 5,526,103), Yamaguchi (US 5,666,627), Okabayashi (US 5,794,096) and Uehara et al. (US 6,175,713) disclose a heating mechanism in an image forming apparatus.

***Inquiry***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sandra L. Brase whose telephone number is 571-272-2131. The examiner can normally be reached on Monday-Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur T. Grimley, can be reached on 571-272-2136. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

Art Unit: 2852

system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, reading "Sandra L. Brase". The signature is written in a cursive style with a large, stylized 'S' and 'B'.

Sandra L. Brase  
Primary Examiner  
Art Unit 2852

June 28, 2004